TRACKS 2006 ATLANTA, GA

Implementing The Tracking Network

## poster ABSTRACT

**Poster No. 8**

### TITLE

**ENVIRONMENTAL PUBLIC HEALTH TRACKING: USING THE RAPID INQUIRY FACILITY TO EVALUATE CONGENITAL MALFORMATIONS IN FLORIDA**

### TRACK

**Technology**

### OBJECTIVES

To understand the Rapid Inquiry Facility and its primary components as an epidemiological evaluation tool. How Florida Dept. of Health is using this technology to assess birth defects in Florida. Discuss and Demonstrate the potential of using the RIF as a Health Tracking tool.

### SUMMARY

BACKGROUND:

Under a cooperative agreement (#U50/CCU423288-01) with the CDC, the Florida Dept of Health is working with other states, academia and cities, towards developing a National Environmental Public Health Network. In November 2005, the CDC facilitated an effort between the FDOH and the Imperial College of London to evaluate the utility of the Rapid Inquiry Facility (RIF) software by linking selected birth defects with environmental hazards in Florida. The Rapid Inquiry Facility (RIF) is an automated tool that utilizes a combination of statistics and a geographic information system for disease mapping. The purpose of the RIF is to rapidly address epidemiological and public health questions using routinely collected health and population data.

METHODS:

The RIF can perform risk analysis around putative hazardous sources, and can be used for disease mapping. It generates standardized rates and relative risks for any given health outcome, for specified age and year ranges, and for any given geographical area.

Principal Features

- The software is designed to be database independent.
- In addition to the point source ‘risk analysis’ and disease mapping options, it is also possible to import detailed exposure data, such as output from dispersion modeling.
- RIF provides a tool that allows users with skills in epidemiology to take advantage of the many functions that a GIS offers without requiring an in-depth knowledge of GIS.
- Since the application is embedded in ArcGIS, those with GIS skills will be able to use all the additional functionality that ArcGIS offers.



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- Within the disease mapping tool, the RIF performs empirical Bayes smoothing of the relative risks.

The RIF can export data for further analysis in other (statistical) software packages such as WinBUGS.

Summary: The RIF shows expanding promise in the U.S., and abroad as an epidemiological Health Tracking tool for birth defects and other health outcomes. The RIF can quickly calculate rates with confidence intervals around point source hazards. The RIF also provides spatial information and suitable mapping techniques that convey results objectively, which demonstrate potential for EPHT network implementation web portal capabilities.

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